Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-15. (canceled)

16. (currently amended) A method of operation of a mobile node within a communication system supporting mobile Internet Protocol (IP), wherein the mobile node is operable to connect to a network infrastructure via one or more mobile gateway routers, the method comprising:

determining that the mobile node is attached to a mobile gateway router associated with a mobile network, wherein the mobile gateway router operates outside of a home network of the mobile node; [[and]]

~~maintaining~~ creating a new binding list entry identifying [[of]] at least one ~~or more~~ correspondent node[[s]] that [[have]] has received a binding update corresponding to the mobile node while the mobile node is operating within its home mobile network; [[,]]

~~wherein the mobile node maintains the binding list when the mobile node is in a home network of the mobile node~~

sending a binding update to the one or more correspondent nodes of the binding list entry created in the home network identifying its attachment to the foreign network upon leaving the home network.

Claims 17-18. (canceled)

19. (original) The method of claim 16, wherein the mobile node comprises a mobile router.

20. (original) The method of claim 16, wherein the mobile node comprises a mobile network node detached from a mobile network.

Claims 21–23. (canceled)

24. (previously presented) The method of claim 38 wherein the care of address comprises at least one of a home address of a) the mobile gateway router and b) the mobile node.

25. (previously presented)The method of claim 38 wherein the care of address comprises an address in a home subnet of the mobile node.

26. (previously presented)The method of claim 16 wherein the mobile node comprises an IP-addressable device.

27. (canceled)

28. (currently amended) The method of claim [[27]] 16 wherein the binding update is generated in response to a tunneled packet from at least one of a) the one or more correspondent nodes, b) the mobile gateway router, and c) a home agent of the mobile node.

29. (previously presented) The method of claim 16 further comprising identifying that a packet was received from the one or more correspondent nodes without traversing a home agent.

30. (previously presented) The method of claim 16, further comprising:

detaching from the mobile gateway router;

attaching to a gateway router in a fixed site in the communication system; and

sending a binding update to the one or more correspondent nodes that are in the binding list of the mobile node to inform the one or more correspondent nodes of the mobile node's attachment to the fixed site.

31. (previously presented)The method of claim 38 wherein the binding update is sent to the one or more correspondent nodes identified in the binding update list.

32. (previously presented) The method of claim 31 wherein the binding update comprises a care of address in a subnet that the mobile node is currently attached to.

33. (previously presented) The method of claim 31 wherein the binding update comprises a care of address of a home address of the mobile gateway router to which the mobile is attached.

34. (previously presented)The method of claim 16, further comprising:

detaching from the mobile gateway router;

attaching to a second mobile gateway router in a second mobile network in the communication system; and

sending a binding update to the one or more correspondent nodes that are in the binding list of the mobile node to inform the one or more correspondent nodes of the mobile node's attachment to the second mobile network.

35. (previously presented) The method of claim 34 wherein the binding update is sent to the one or more correspondent nodes identified in the binding update list.

36. (previously presented) The method of claim 35 wherein the binding update comprises a care of address in a subnet that the mobile node is currently attached to.

37. (previously presented) The method of claim 35 wherein the binding update comprises a care of address of a home address of the mobile gateway router to which the mobile is attached.

38. (previously presented) The method of claim 16 further comprising when the mobile node has moved away from the home network:

obtaining a care of address comprising the home address of the mobile gateway router; and

sending the care-of address to a home agent of the mobile node.

39. (previously presented) The method of claim 38, further comprising sending a binding update to the one or more correspondent nodes.

40. (previously presented) The method of claim 39 wherein the binding update is generated in response to a tunneled packet from at least one of a) the one or more correspondent nodes, b) the mobile gateway router, and c) a home agent of the mobile node.

41. (currently amended) A method of operation of a mobile node within a communication system supporting mobile IP, wherein the mobile node is operable to connect to a network infrastructure via ~~one or more~~ a mobile gateway router[[s]], wherein the mobile gateway router operates outside of a home network of the mobile node, the method comprising:

operating within the home network of the mobile node including:

creating a binding list by determining the one or more correspondent nodes that have received a binding update corresponding to the mobile node;

detaching from [[a]] the home network of the mobile node; and

operating within a foreign network of the mobile node including:

determining the one or more correspondent nodes that have received a binding update corresponding to the mobile node, where the determination is made using the binding list entries created in the home network and prior to receiving any packets from the correspondent node, [[;]] and

sending a binding update to the one or more correspondent nodes to inform the one or more correspondent nodes of a mobile new care-of address.

42. (canceled)

43. (currently amended) The method of claim [[42]] 41, wherein the binding list comprises one or more correspondent nodes that have received a binding update mapping an address corresponding to the mobile node to a care of address.

44. (previously presented) The method of claim 43, where in the care of address comprises an address corresponding to the mobile gateway router.

45. (new) The method of Claim 41, wherein when operating within the foreign network, the step of determining the one or more correspondent nodes that have received a binding update corresponding to the mobile node comprises:

receiving a tunneled packet from the correspondent node, a tunneled packet from a Home Agent of the home network, or a tunneled packet from the gateway router.

46. (new) The method of Claim 41, further comprising, while operating within the home network of the mobile node:

sending binding updates to one or more correspondent nodes.

47. (new) The method of Claim 16, further comprising:

sending binding updates to one or more correspondent nodes identifying its point of attachment to the mobile network while the mobile node is operating within its home network.

48. (new) A system including a mobile node operable to connect to a network infrastructure via a mobile gateway router, the system comprising:

a home mobile gateway router of a mobile node operable to send a binding update with Internet Protocol (IP) address information including that of the mobile node to a correspondent node;

the mobile node, while in its home network, operable to determine that it is in its home mobile network and to create a new binding list entry with information about the correspondent node, and further operable to send a binding update to the correspondent node with information about its new point of attachment upon leaving its home mobile network.